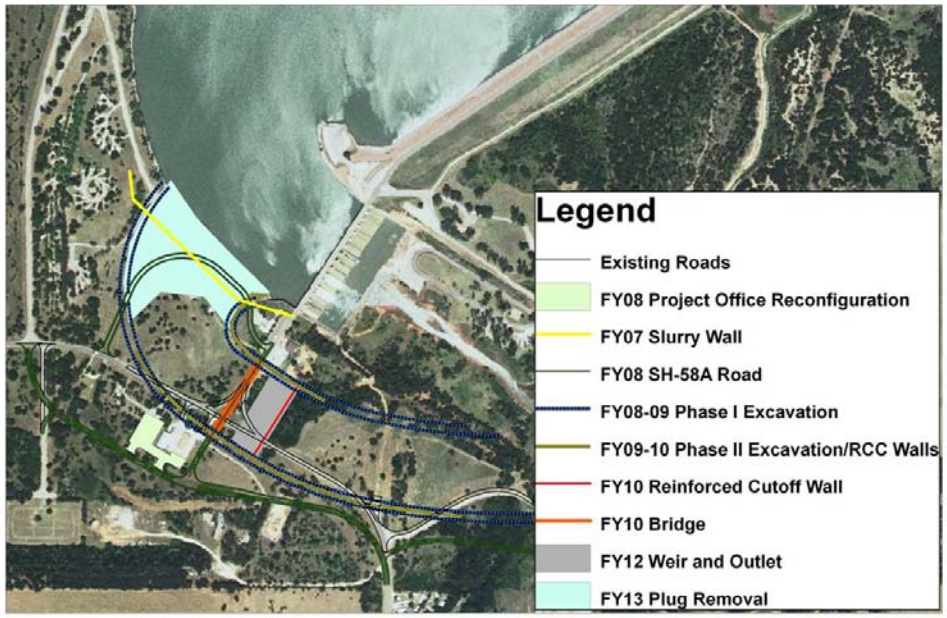

Major Project Features and Schedule

The figure above shows where the major features of work will be placed.

- **Project Office Reconfiguration: This work is scheduled to be complete by November of 2009.**
- **Slurry cut-off Wall: The cut-off wall construction is complete allowing construction to begin in the spillway area.**
- **Highway 58A Road: The road relocation around the construction zone is complete.**
- **Phase I Excavation: The first phase of excavation of the spillway channel is underway and is scheduled to be complete by November of 2010.**
- **Reinforced Cutoff Wall: This underground wall serves to prevent soil erosion during a large flood event.**
- **Bridge: A new bridge over the spillway will be completed in 2012.**
- **Weir and Fuse Gates: The weir forms the base for the large gates to be placed in the spillway.**
- **Plug Removal: This last step in the construction process, involving removal of the remaining soil between the lake and the new spillway, will be completed in 2014.**

Safety is always the Corps of Engineers' primary concern. Construction fencing and signage are provided to clearly mark prohibited areas. Visitors to Canton Lake are reminded to use caution at all times, avoid entering construction zones, observe all traffic signs and park only in designated areas.

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Canton Lake

Dam Safety Project

Informational Brochure

US Army Corps of Engineers®

Created May 2009

Project Features and Description

In 2001, the U.S. Army Corps of Engineers, Tulsa District, completed a Dam Safety Assurance Program Evaluation for Canton Lake which identified deficiencies that are now being corrected. A hydrologic deficiency identified in the report was the potential for a Probable Maximum Flood to overtop the dam. A fuse-gated auxiliary spillway and channel, designed to increase discharge capacity, is being constructed.

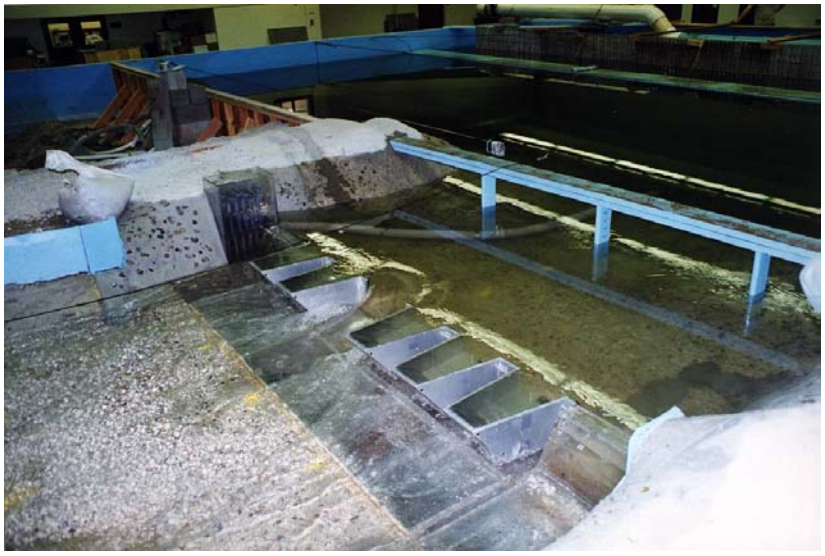
When the project is completed, the Canton Lake Dam Auxiliary Spillway will be the largest fuse-gated spillway in the world.

Before any material could be excavated to allow for the new spillway channel, a bentonite-cement slurry cut-off wall was constructed to prevent seepage of water from the lake into the excavation area. The picture below shows construction of the cutoff wall along the lake's edge behind the Canton Overlook.

The top corner picture is an aerial photograph of construction progress during the first phase of excavation of the spillway. Vegetation and soil are being removed prior to construction of the spillway channel walls. Soil removed from the channel area is being placed along the downstream toe of the dam. The resulting berm, in conjunction with a new drain system, will control foundation seepage.

Construction of a new bridge over the spillway, a concrete base for the fuse gates, and other engineered features will follow.

The picture below shows a scale model of the Canton Auxiliary Spillway. The spillway will have fuse gates that tip like giant concrete buckets in a chosen sequence to slow the flow of water through the spillway. This model was built to facilitate the design effort for the project.



A second deficiency identified was the presence of a weak foundation under the existing spillway. The photo to the right shows the 2006 installation of rock anchors at the existing spillway which corrected this deficiency. These anchors were installed to provide stability to the spillway structure. The anchors were drilled into rock and tensioned.